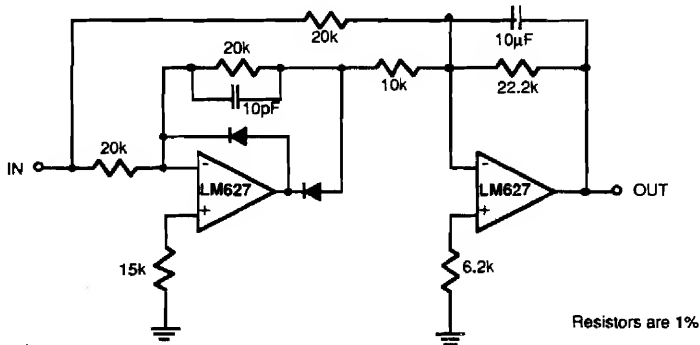


# LM627

## Precision AC to DC Converter

*non-line RMS*

*only sine wave.*



■ National Semiconductor

This precision ac-dc converter takes advantage of the LM627's improved ac performance as well as its high degree of dc precision. The design is conventional, with the first amplifier serving as a half-wave rectifier. By summing the half-wave rectified signal with half of the input waveform, a full-wave rectified signal current appears at the summing node of the second amplifier. This signal is averaged by the  $10\mu\text{F}$  feedback capacitor to provide a dc output signal. With a sine wave input, the output voltage will be the rms value of the input signal.